



MBS®

Two curing technologies.

One housing.

One power supply.

MBS[®] – the UV all-round system for label printing



Based on innovative solutions:

- **URS[®] Duo reflector technology**
- **ELC[®]-X electronic power supply device**

Advantages:

- **Reduction in operating costs**
- **More economical production**
- **High quality and productivity**
- **Relatively low investment costs**



MBS[®] – the UV all-round system for label printing



Three product versions:

MBS[®] LAMPcure



- Air-cooled lamp system (120 W/cm)
- Optionally with output of 145 W/cm for low migration printing

MBS[®] LEDcure



- Air-cooled LED system (55 W/cm)

MBS® – the UV all-round system for label printing

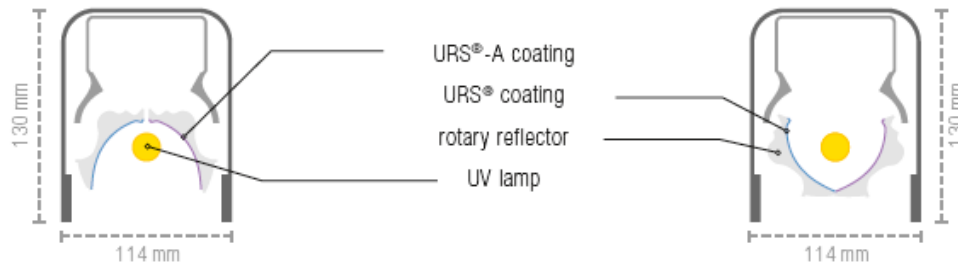
URS® Duo reflector technology

- MBS® LAMPcure is equipped with URS® and URS®-A reflectors (= Duo reflector)
- Extremely long service life (warranty 10.000 h)
- Optimum heat management (lamp and lamp socket cooling)
- Better curing performances for higher speeds and heavy ink loads

REMARK:

- URS® only configuration is out of specification

Functionality: URS® Duo reflector technology



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ELC[®]-X electronic power supply device

- Standard for MBS[®] UV systems
- The dimming range of the UV lamp can be regulated continuously
- Same ELC[®]-X for UV lamps and MBS[®] UV LED units
- Compact piling concept reduces the required space up to 50%
- Easy access to the devices at all times

REMARKS:

- ELC-X6 supplies the reserve for 145 W/cm up to a lamp length of 410 mm

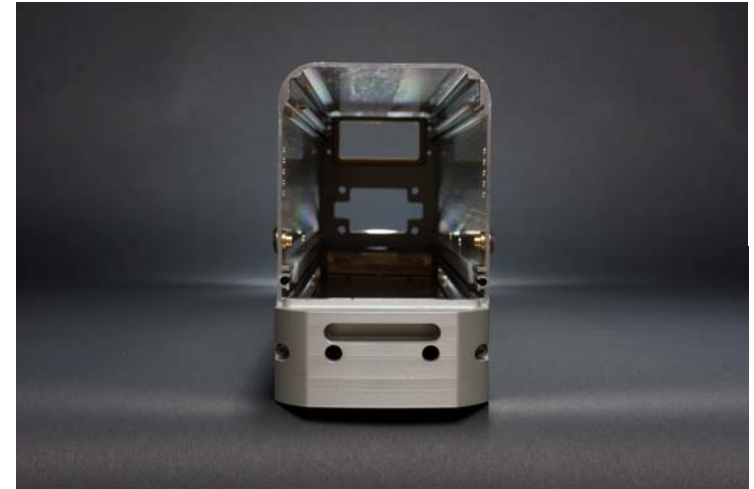


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Quick-change cassette

- Removable internal housing
- Easy exchange from LAMPcure to LEDcure
- All supply connections engage automatically
- Easy access to all components without screws
- Reduces maintenance times to a minimum



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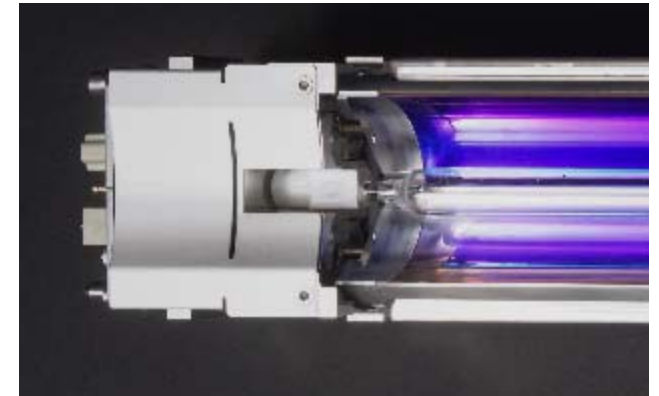
MBS-6

- Standard distance to web 45 mm
- Lamp diameter 22 mm
- Electric motor operated shutter (rotary reflector part)
- Max. 120 W/cm



MBS LAMPcure

- Standard distance to web 39 mm
- Lamp diameter 19 mm
- Pneumatic operated shutter (turning reflectors)
- Max. 145 W/cm
- Dose [mJ/cm²] + 40%



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High-performance LEDcure

- Hot swap technology
- MBS[®] LEDcure is ready to use immediately after switching on
- No warm-up or cooling times → saves both time and energy
- LEDs have a long (expected) service life
- Individual modules (in steps of 30 mm) can be replaced easily if required
- Option: Patented format switching in steps of 60 mm
- LED UV systems from IST METZ are available in different wavelengths (365-405 nm)

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Air cooling for lamps and LEDs

- Exhaust air quantity and the rate of air flow have been optimised
- contamination of the lamp and the reflector or the LEDs is reduced
- Machine downtimes for cleaning are thus kept to a minimum



Warranty

- 10,000 operating hours on URS® type reflectors
- 2,500 operating hours on UV lamps

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Design and Handling

- **Unique, state-of-the-art design**
- **All relevant components of the UV dryer can be accessed without touching a single screw**
- **Quick and easy to switch between the UV lamp system and UV LED system**



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Economy

- In addition to the savings to be made from low-energy production, availability of the printing press can also be improved
- The MBS® has been specifically designed to ensure that machine downtimes are reduced (more solid design compared to MBS-6)
- All servicing work can be performed quickly and easily

→ saving both time and money

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Smart Control

- **New generation of the MBS® product family is equipped with the Smart Control system user interface**
- **Makes the operation of UV systems clear, is easy to use**
- **Allows straightforward integration into the control systems of all common kinds of printing press**

REMARKS:

- **Remote ready feature is still available**

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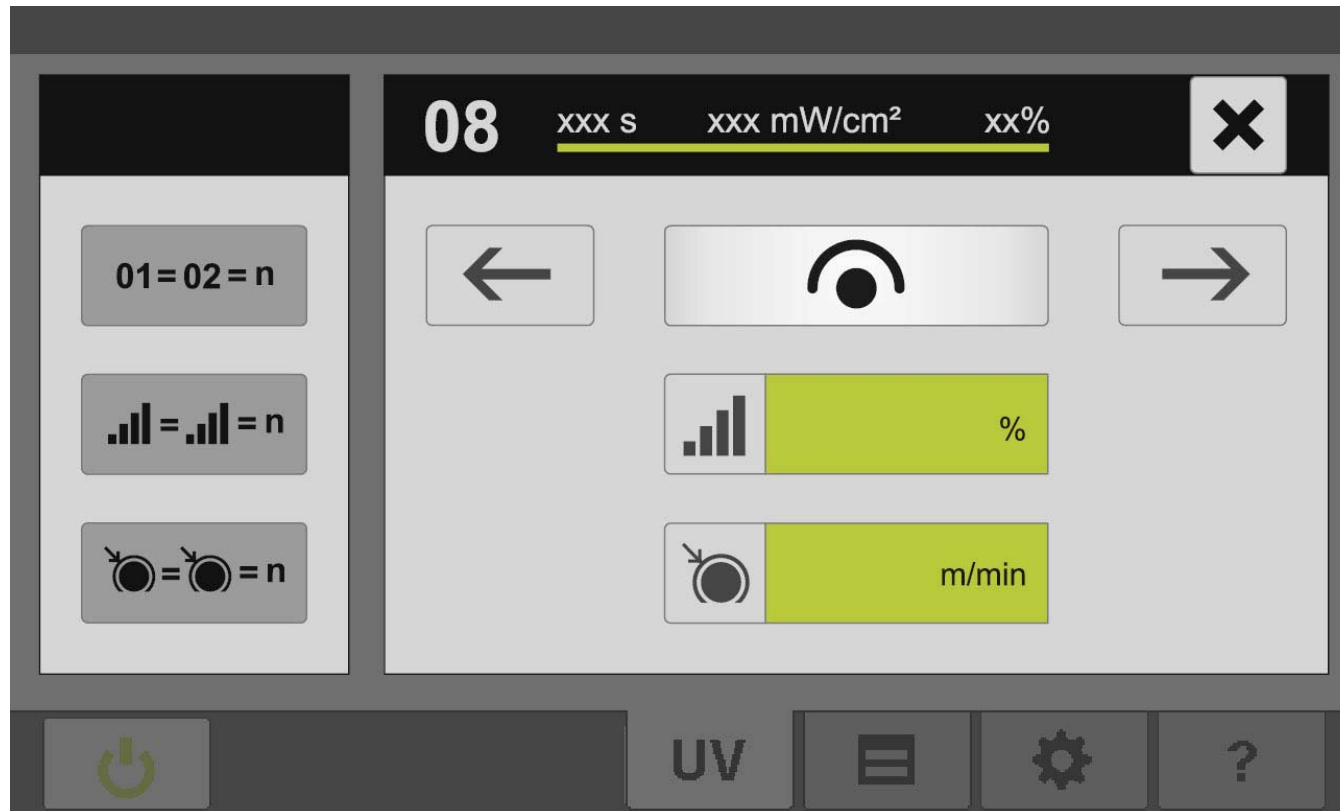
Smart Control

The screenshot displays the MBS Smart Control interface. At the top, a status bar shows 'xxx s', '11:42 h', and '18.03.2015'. Below this are five control cards labeled 01 through 05. Each card has a header with a number and a unit 'xxx s'. Card 01 features a radio icon and three data fields: two percentage values and one 'm/min' value. Card 02 has a radio icon and three data fields: two percentage values and one 'm/min' value. Card 03 has a radio icon and three data fields: two percentage values and one 'mW/cm²' value. Card 04 has a grid icon and three data fields: two percentage values and one 'm/min' value. Card 05 has a grid icon and three data fields: two percentage values and one 'mW/cm²' value. Below the cards are two large arrows pointing left and right. At the bottom, there are three main control blocks: 'UV' with two 'mW/cm²' fields, 'N₂' with two 'mW/cm²' fields, and a block with a radio icon, a 'm/min' field, and a 'm/min' field. The bottom navigation bar contains icons for power, stop, 'UV', menu, settings, and help.

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Smart Control

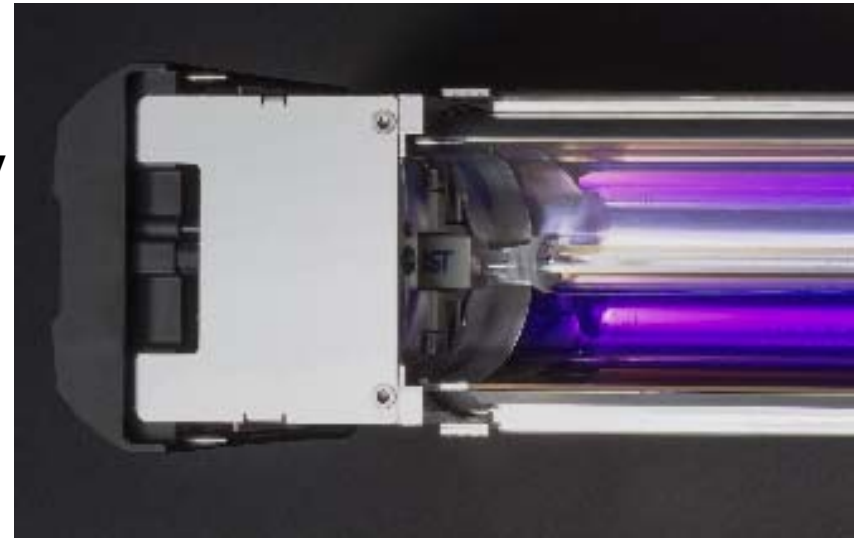


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FLC[®] – Fast Lamp Change

- The cordless FLC[®] UV lamp system enables the UV lamp to be changed quickly and easily
 - Can be removed from the lamp unit with just one movement
- several hours of additional machine availability over the course of a year



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Heat management

- Raytracing is used to improve the UV efficiency of the UV unit, the homogeneity of the radiation, and the distance characteristics
 - Thermodynamics are also optimised
- Allows development times to be cut considerably, while reducing test setups at the lab



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UV measurement

- MBS[®] LAMPcure is prepared for UV measurement as standard
 - UMS-2 UV measurement device enables the output to be controlled
- Preventing machine downtimes

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Product safety

- the MBS® family carries the „DGUV Test“ mark (formerly GS Mark)
- this mark is a valid and legally regulated test symbol for product safety that is recognised across Europe



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Improves your energy balance

- **e³ = energy efficient equipment**
- **All UV systems developed by IST are designed with the best possible utilisation of electrical energy in mind**
- **The aim is to significantly increase the energy efficiency of each new product generation in comparison to its predecessor**
- **The “e³” label confirms the use of exceptionally energy-efficient equipment**



Which for what?

Which type of MBS system is recommend for what type of application.....

LEDcure:

- Heavy solids (Flexo, Screen)
- Opaque white
- Temp. sensible substrate ($\leq 40 \mu\text{m}$)
- Laminating processes
- Accurate registered in front printed inks

LAMPcure:

- Final curing on end of press
- Coatings
- Low migration

AND ... every application needs the availability of consumables





Thank you

IST® METZ GmbH